

## REMARKS

Applicants thank the Examiner for the courtesy extended to Applicants' attorney during the interview held September 15, 2003, in the above-identified application. During the interview, Applicants' attorney explained the presently-claimed invention and why it is patentable over the applied prior art, and discussed other issues raised in the Office action. The discussion is summarized and expanded upon below.

The rejections of Claims 1-6, 8-13, and 15-21 under 35 U.S.C. § 103(a) as unpatentable over U.S. 6,056,967 (Steuerle et al) is respectfully traversed. Steuerle et al describes "water-soluble, amino-containing condensates" prepared by reacting various polyamines with crosslinking agents containing at least two functional groups (column 2, line 60 to column 3, line 23). Steuerle et al indicates that these crosslinking agents may include bischlorohydrin or bisglycidyl ethers of polyalkylene glycols (column 5, lines 44-46), dichloroalkanes, blocked diisocyanates (column 6, lines 9-24) and alkylene dicarboxylic acids, salts, diesters, and diamides (column 7, lines 4-24). However, Steuerle et al fails to describe difunctional compounds having a halohydrin, epoxy, chloroformate, isocyanate or halogen group, and containing at least one alkyl or alkylene radical of at least 8 carbon atoms, as in the claimed invention. Moreover, Steuerle et al fails to describe a cationic polymer in which the crosslinking group has the structure of the compounds of formula (IV)-(IX) of the claimed invention. Thus, Steuerle et al describes a different modified cationic polymer. The modified cationic polymer of Claim 1 of the present invention is prepared by reacting a water-soluble polymeric compound (a) with a compound (b) which is at least bi-functional with respect to the NH groups of compound (a), contains at least one alkyl or alkylene radical of at least 8 carbon atoms, and where the functional groups are selected from a halohydrin, epoxy, chloroformate, isocyanate, or halogen. These functional groups are different from those of Steuerle et al, and would reasonably be expected to react in a different manner, and

upon reaction with a NH group, form a different functional group. Since different functional groups have different properties (e.g., water-solubility), the modified cationic polymers of Claim 1 would be expected to have different properties compared to those of Steuerle et al. Moreover, none of the crosslinking agents of Steuerle et al have a structure corresponding to compounds of formulae (IV)-(IX) of the claimed invention. Since the structure of a crosslinking agent, and the presence of alkyl or alkenyl groups "R" would reasonably be expected to affect the solubility and other properties of the cationic polymer, the cationic polymers of the claimed invention, in which the compound (b) is a compound of formulae (IV)-(IX), would also be expected to significantly different from the compounds of Steuerle et al.

In the Final Office Action, the Examiner finds that Applicants' arguments "imply" that the crosslinking agent in Steuerle et al is limited to carboxyl compounds, and that Steuerle et al's crosslinking agents include other than carboxyl compounds.

In reply, the only crosslinking agents disclosed by Steuerle et al that may contain a hydrocarbon chain of at least 8 carbon atoms is formula (I) at column 7, line 9ff. In that formula, the hydrocarbon chain is necessarily alkylene, containing at each end a carboxyl group, or a salt, ester, or amide of the carboxyl group, except that when an amide, the nitrogen may be bonded to an alkyl group which may contain at least 8 carbon atoms. However, Claim 1 (and claims dependent, thereon) are patentable because formula (I) of Steuerle et al does not include halohydrin, epoxy, chloroformate, isocyanate group or a halogen atom. Similarly, Claims 3 and 6 (and claims dependent, thereon) are patentable because formula (I) of Steuerle et al does not overlap and is not suggestive of any of the compounds represented by formulae (IV)-(IX).

Claim 18 would appear to be separately patentable, in view of the Examiner's indication of allowability of Claim 14, since Claim 18 is drawn to a process for preparing the product of Claim 14.

During the above-referenced interview, the Examiner agreed that Claim 1 is allowable and that Claim 3 would be if amended into independent form.

For all the above reasons, it is respectfully requested that the rejection over Steuerle et al be withdrawn.

Applicants gratefully acknowledge the Examiner's indication of the allowability of the subject matter of Claim 14. Nevertheless, Applicants respectfully submit that all of the presently pending claims are now in condition for allowance, and early notification thereof is earnestly solicited.

Respectfully submitted,

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